The Economic Impact of the Jersey Fresh State Marketing Program

FINAL REPORT

To

Federal-State Marketing Improvement Program
Agricultural Marketing Service
USDA

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Acknowledgments

The authors wish to acknowledge several individuals who provided useful comments and guidance in the completion of this study. At the New Jersey Department of Agriculture, the valuable input of Secretary Charles Kuperus and Division of Marketing and Development Director Al Murray is especially noted. The constructive feedback of Margaret Brennan, Associate Director of the New Jersey Agricultural Experiment Station and Lou Cooperhouse, Director of the Food Innovation Research and Extension center is also greatly appreciated. Funding for this study was provided by the Agricultural Marketing Service, USDA and the New Jersey Department of Agriculture.

The authors also express their sincere appreciation for the capable research support provided by Dr. Benjamin Onyango, Dr. Edouard Mafoua, and Lucas Marxen at the Food Policy Institute.

Returns to the Jersey Fresh Promotional Program The Impacts of Promotional Expenditures on Farm Cash Receipts in New Jersey

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The Impacts of Promotional Expenditures on Farm Cash Receipts in New Jersey

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Executive Summary

In 1984, the Jersey Fresh program was implemented by the New Jersey Department of Agriculture and was the first state-funded marketing campaign for agricultural products produced in New Jersey. In an effort to spur demand for New Jersey farm products, this program was designed to increase consumer awareness of the state's agricultural products as well as to encourage food retailers to promote Jersey Fresh products.

With funding from the USDA's Federal-State Marketing Improvement Program, the New Jersey Department of Agriculture commissioned this study to determine the impact of Jersey Fresh promotion on farmer cash receipts in New Jersey. The econometric analysis was focused on the fruit and vegetable sectors, the primary commodity areas expected to benefit most directly from Jersey Fresh promotion.

Study results show that:

- For every dollar spent on the Jersey Fresh Promotional Program through 2000, New Jersey's agricultural fruit and vegetable sector revenues increased by $31.54 (2003 dollars).
- The additional economic activity created in the agricultural industry also had impacts on other parts of the economy, namely agricultural suppliers and service providers. In fact, each dollar spent on Jersey Fresh promotion resulted in an additional $22.95 of sales in agricultural support industries and other related industries.
- In total, each dollar spent on Jersey Fresh promotion resulted in $54.49 of increased economic output in the State.

Adjusting all dollars to 2003 levels, this means that the $1.16 million spent on the Jersey Fresh program in 2000 increased fruit and vegetable cash receipts by $36.6 million and created an additional $26.6 million in economic activity within agricultural support industries. The total statewide economic impact of the Jersey Fresh program was therefore an estimated $63.2 million.

The economic activity generated through Jersey Fresh promotion also impacts local, state, and federal taxes. An analysis of these tax impacts shows that New Jersey's State and local tax revenues increased by $2.2 million in 2000 due to the increased economic activity attributable to Jersey Fresh promotion. Comparing this return to the 2000 program budget of $1.16 million, the Jersey Fresh program appears to be better than revenue-neutral.

Introduction

Brand promotion is largely contingent upon some perceived differentiation among products. In the case of most agricultural products, however, such differentiation is difficult to achieve. Products grown by different farmers are largely undistinguishable. Opportunities for market expansion via brand promotion are therefore quite limited in the agricultural industry unless a farmer occupies a niche market or is differentiable on some other basis (i.e., service, quality, etc.). This, too, is uncommon in agriculture.

Much of agriculture is characterized by competitive markets. Individual farmers are typically incapable of influencing the prices they receive for products and are forced to sell goods at prices determined by the market. Collective promotion of farm products is a potential avenue for expanding markets for particular agricultural products, however, the requisite conditions for this form of promotion typically do not exist in New Jersey. New Jersey agriculture does not have dominant commodity areas within which farmers can formulate effective collective marketing strategies (e.g., constituting marketing cooperatives).

As summarized by Adelaja, Nayga and Schilling (1994), farming in New Jersey does offer advantages that facilitate collective multi-commodity promotion. For instance, New Jersey farmers have proximate access to a vast and affluent metropolitan consumer market within which demand for fresh, high quality farm products is relatively high. Such proximity is an advantage, vis-à-vis producers in other regions of the U.S. or nations, that New Jersey agriculture is capable of capitalizing upon. In recognition of the difficulties associated with a private sector-led mobilization of farmers to engage in collective promotion (“free riders”, limited perception of

opportunities for private gains, etc.), the New Jersey Department of Agriculture initiated the Jersey Fresh Program to promote farm products grown in the state. Along with the promotional program, a quality enhancement or standardization program designed to ensure brand quality was also implemented.

With funding from the USDA's Federal-State Marketing Improvement Program, the New Jersey Department of Agriculture commissioned this study of the returns to the Jersey Fresh program. The focus of this study is to estimate the return to state expenditures on the Jersey Fresh program. Such an analysis encounters the same challenges faced by Adelaja, Nayga and Schilling in their 1994 study of the returns to Jersey Fresh, namely the selection of the appropriate methodology for evaluating return(s).

The Jersey Fresh Program

In 1984, the Jersey Fresh program was implemented by the New Jersey Department of Agriculture and was the first state-funded marketing campaign for agricultural products produced in New Jersey (Govindasamy et al., 1999; Govindasamy et al., 2001). In an effort to spur demand for New Jersey farm products, this program was designed to increase consumer awareness of the state's agricultural products as well as to encourage food retailers to promote Jersey Fresh products in displays. The advertisement media utilized under the Jersey Fresh program comprised billboards, ads in newspapers and wholesale trade publications, radio commercials on New Jersey, New York and Philadelphia stations, television commercials and a variety of other materials including pins, bumper stickers and the like. Private funds were also leveraged under the program by matching the promotional dollars of agricultural

organizations seeking to promote specific commodities. In 1984, $50,000 in matching funds was allocated as part of the Jersey Fresh program (NJDA, 1985).

A key factor advanced by the Jersey Fresh program was the freshness and quality of New Jersey's farm products. Proximity to the major tri-state consumer markets helped ensure product freshness at the time of purchase (Govindasamy et al., 1996). Indeed, a Gallup poll in 1984 indicated that freshness was among the most important attributes motivating the purchase of farm products. Sixty percent of individuals surveyed felt that New Jersey farm products were superior to products from other states in terms of freshness while nearly two-thirds of those polled indicated that they would purchase farm products identified as New Jersey grown. Subsequent research by (Govindasamy et al., 1998[a]; Govindasamy et al., 1998[b]; Govindasamy et al., 1998[c]; Govindasamy et al., 1998[d]) documented both a high level of consumer awareness of the Jersey Fresh program, as well as a preference among consumers for produce grown in New Jersey.

Funding for the Jersey Fresh program in its first year was $325,000. As shown in Exhibit 1, funding increased to a level of $1.25 million in 1988 and 1989. Funding, however, declined dramatically over the next 3 years to a level of only $50,000. The 1994 study of the impacts of the Jersey Fresh program on agricultural cash receipts in New Jersey suggested high returns and led policy makers to restore funding of the Jersey Fresh program to its previous level. In 1993, the program's budget was restored to $1.26 million and was maintained at this level through 1996. In 1997, the Jersey Fresh budget was reduced slightly to $1.16 million due to internal re-allocations of funds within the New Jersey Department of Agriculture. The budget again declined in 2001 to

$1.02 million. In 2003, the program's budget was $826,000. Since the program's inception in 1984, the state has allocated a total of $18.1 million to support the Jersey Fresh program.

Table 1: Expenditures on the Jersey Fresh Program (1984-2003).

Year	Jersey Fresh Budget
1984	$325,000
1985	$625,000
1986	$875,000
1987	$1,125,000
1988	$1,275,000
1989	$1,275,000
1990	$825,000
1991	$125,000
1992	$50,000
1993	$300,000
1994	$1,260,000
1995	$1,260,000
1996	$1,260,000
1997	$1,160,000
1998	$1,160,000
1999	$1,160,000
2000	$1,160,000
2001	$1,016,000
2002	$1,016,000
2003	$826,000
Total (1984-2003)	**$18,078,000**

[a] The analysis in this study utilizes Jersey Fresh expenditure data for the 1984-2000 period due to the unavailability of more recent data for a number of dependent variables in the model.

Study Objectives

The purpose of this study is to examine the impacts of the Jersey Fresh program on the agricultural cash receipts of New Jersey farmers and the state in general. Specifically, the return on public expenditures on the Jersey Fresh program accruing to the fruit and vegetable sectors, the primary beneficiaries of the marketing program, will be estimated. The effects of this additional agricultural revenue on other supporting industries will also be estimated. It is anticipated that the results of this study will be useful to policy makers in assessing the benefit of and need for the Jersey Fresh program.

Empirical Model

Methods for estimating the returns to state agricultural promotion are not well established. The study team is unaware of any comparable studies in other states. Given that time series data is available on Jersey Fresh promotional program expenditures since its inception, the approach taken in this study is to estimate a Promotion Response Function (PRF) for New Jersey agriculture. The approach used in this study represents a refinement of the promotional response function developed by Adelaja et al. (1994) to estimate the impacts of the Jersey Fresh program on farm cash receipts. This methodology is used frequently for similar purposes (Kaiser et al., 1992; Kinnukan and Forker, 1986; Thompson and Eiler, 1975). Appropriate determinants of revenue include determinants of demand and supply and price determinants. Among the demand determinants previously used in similar studies are product price, demographics, consumer income, price of competing commodities, and trend related variables. Supply

determinants include prices of products competing for the same resources, technology proxy and commodity price.

Several different model specifications, based upon the most commonly used determinants of farm cash receipts in the literature, were developed and estimated in this research. In order to provide a more refined and accurate measure of the actual impact of state promotion on New Jersey farmers' sales, several revisions to the 1994 model were made. First, rather than measuring the impact of Jersey Fresh on all cash receipts, it was determined to be more appropriate to focus the analysis on only the fruit and vegetable sectors; the primary commodity groups believed to benefit from Jersey Fresh promotion. Second, to more fully explain variability in farm cash receipts, crop yields were "de-trended" in order to control for factors such as technological changes over time and provide a more pure estimate of the effect of Jersey Fresh promotion on farm sales. Third, the effects of price variability due to inflation were controlled by adjusting all dollars to 2000 dollars. Finally, variables for per capita fruit and vegetable consumption were added to control for the effects of trends in consumer demand for such products.

Models were developed defining three different dependent variables: total cash receipts in the fruit and vegetable sectors, cash receipts in the fruit sector only, and cash receipts in the vegetable sector only. The final models upon which the results of this study are based specify farm cash receipts (defined using each of the three different measures) as a function of real per capita income of New Jersey, real expenditures on the Jersey Fresh program, the aggregate price index for New Jersey farm commodities, the aggregate price index for United States, real per capita consumption expenditures for

United States residents, a dummy variable for the implementation of the Jersey Fresh program (defined as a zero prior to 1984 and one otherwise), U.S. per capita consumption of fruits, and U.S. per capita consumption of vegetables. Data were collected for the period from 1970 to 2000.

The cash receipts variables were constructed as composites of crop acreage, yield per acre, and unit price for the major fruits and vegetables in New Jersey in order to control for effects such as price fluctuation and technological change impacts.[1] This allowed for the estimation of several different dependent variable specifications, including:

(1) deflated commodity prices;

(2) deflated commodity prices and de-trended yields; and,

(3) deflated commodity prices and adjusted de-trended yields.

For all models, dollar values were deflated using the consumer price index (CPI) for Northeast urban consumers (all items) from Bureau of Labor Statistics. All values were deflated using a 2000 index for easier interpretation of results.

De-trending the yield eliminates the increase in yield due to technological improvements over time and captures true increase in production due to Jersey Fresh promotional program. Yields were de-trended using two different methodologies, as follows. Specification 2 ("de-trended yields") was derived as follows:

[1] Fruits included in the fruit sector cash receipts composite are apple, blueberry, cranberry, peach, and strawberry. The vegetable sector comprises asparagus, cabbage, cucumber, eggplant, escarole, lettuce, pepper, snap bean, spinach, sweet corn, and tomato.

Consider the following equation,

$y_t^a = a + bt$ +e, (1)

where,

$y_t^a =$ actual non-de-trended crop yield

$y_t^T = a + bt$ is the trended crop yield (2)

$e = y_t^D =$ random component or de-trended crop yield (3)

From (1), (2) and (3) we can derive

$y_t^a = y_t^T + y_t^D$ (4)

Since the residual e may be positive or negative, from (1)

$y_t^a - bt = a + e = y_t^D$

One can estimate de-trended crop yield as

Model 1: $y_t^D = y_t^a - bt$ or (5)

Model 2: $y_t^D = a + e$ (6)

Specification 3 (“adjusted de-trended yield”) was derived as follows. Adjusted de-trended is calculated as: de-trended yield plus actual yield average minus de-trended yield average. Therefore, adjusted de-trended yield can be calculated as:

$$y_t^{AD} = y_t^D + (\overline{y_t^a} - \overline{y_t^D}) \quad (7)$$

Adjusted de-trended values more accurately eliminates increases in yield due to technological factors and better isolates the impact of Jersey Fresh promotional program. The results from all three models are presented for comparison.

Data and Estimation

Data were collected from various sources. Per capita income of New Jersey residents was collected from Bureau of Economic Analysis of U.S. Department of Commerce. Jersey Fresh budget information was collected from New Jersey Agricultural yearbooks. Since New Jersey price index is not readily available, the index was calculated as the Thornquist-Theil index of all community prices. The data pertaining to U.S. price index of farm commodities and U.S. per capita expenditure were obtained from Bureau of Labor Statistics of US Department of Labor. U.S. per capita consumption of fruits and vegetables were collected from Economic Research Service of United States Department of Agriculture.

An ordinary least squares model (OLS) was used to estimate the results, assuming a linear relationship between cash receipts and its determinants as:

$$X_i = \alpha_0 + \alpha_1 \text{DPCAPITAY} + \alpha_2 \text{DJFBUDGET} + \alpha_3 \text{NJPRIC} + \alpha_4 \text{USPRICES} + \alpha_5 \text{DUSPCEXPND} + \alpha_6 \text{JFDUMMY} + \alpha_7 \text{PCC\_FRUITS} + \alpha_8 \text{PCC\_VEG} + U; \quad (8)$$

Where i = 1 to 9.

Where,

X_1 is deflated actual revenue of vegetables (dollars),

X_2 is deflated actual revenue of fruits (dollars),

X_3 is deflated actual revenue of fruits and vegetables (dollars),

X_4 is deflated detrended revenue of vegetables (dollars),

X_5 is deflated detrended revenue of fruits (dollars),

X_6 is deflated detrended revenue of fruits and vegetables (dollars),

X_7 is deflated adjusted revenue of vegetables (dollars),

X_8 is deflated adjusted revenue of fruits (dollars),

X_9 is deflated adjusted revenue of fruits and vegetables (dollars),

DPCAPITAY is the deflated per capita income of New Jersey (dollars),

DJFBUDGET is deflated expenditure on the Jersey Fresh program (dollars),

NJPRIC is the aggregate price index for New Jersey farm commodities,

USPRICES is the aggregate price index for United States,

DUSPCEXPND is deflated per capita consumption expenditure of Unites States (dollars),

JFDUMMY is a dummy variable defined as a zero prior to 1984 and one otherwise,

PCC_FRUITS is U.S. per capita consumption of fruits (lbs.) and

PCC_VEG is U.S. per capita consumption of vegetables (lbs.).

The intercept term is represented by α_0 while other coefficients are represented as α_1 through α_8. The error term is represented by U and is assumed to be normally and independently distributed with a mean of zero and constant variance. The coefficient for JFBUDGET (α_2) provides the marginal impact of a Jersey Fresh Program dollar on cash receipts of New Jersey farmers.

Study Results

The estimation results for each of the 9 models are presented in Tables 2, 3, and 4. The interpretation of findings will focus on the results of the "deflated, adjusted de-trended" promotion response function models estimated for the (1) fruit and vegetable sectors, (2) fruit sector, and (3) vegetable sector.

The Fruit and Vegetable Model

The estimation results of the promotion response function for the combined fruit and vegetable sectors are presented in Table 2. The adjusted R-square for the deflated, adjusted de-trended model is 0.9281. The adjusted R-squares for deflated and deflated/de-trended models are 0.8814 and 0.922, respectively. All three models are significant at 1%, which indicates that collectively the independent variables significantly explain the variation in fruit and vegetable cash receipts. In the case of the deflated model, DPCAPITAY is significant at 5% and DJBUDJET is also significant at the 5% level. In the case of deflated/de-trended model, DPCAPITAY is significant at the 10% level, while DJBUDGET and JFDUMMY are significant at the 5% level. In the case of the deflated adjusted de-trended model, DPCAPITAY, DUSPCEXPND and

PCC_VEG are significant at 10% level. DJBUDGET and JFFUMMY are significant at 5% level.

Table 2: Promotion Response Function Model Coefficients for Fruits and Vegetables.

Variables	Parameter Estimates		
	Deflated	Deflated De-trended	Deflated adjusted De-trended
INTERCEPT	780822119***	798387086***	91224098***
DPCAPITAY	-12564**	-11915*	-11733*
DJBUDGET	26.66**	25.37**	29.10**
NJPRIC	-142733	-196008	-192550
USPRICES	143311	80796	103552
DUSPCEXPND	46353	43592	50932*
JFDUMMY	-38604628	-50338356**	-52461551**
PCC_FRUITS	-1586883	-1939063	-2057551
PCC_VEG	-1354405	-1117451	-1823560*

* Variables are statistically significant at the 10 percent level.
** Variables are statistically significant at the 5 percent level.
*** Variables are statistically significant at the 1 percent level.

The Fruit Model

The estimation results of the promotion response function for the fruit sector are presented in Table 3. The adjusted R-square for the deflated adjusted de-trended model is 0.758. The adjusted R-squares for deflated and deflated/de-trended models are 0.5522 and 0.735, respectively. All three models are significant at 1%, which indicates that the independent variables significantly explain the variation in fruit cash receipts. In the deflated and deflated/de-trended models, PCC_VEG is significant at the 10% level and in the deflated adjusted de-trended model PCC_VEG is significant at the 5% level.

Table 3: Promotion Response Function Model Coefficients for Fruits.

Variables	Parameter Estimates		
	Deflated	Deflated De-trended	Deflated adjusted De-trended
INTERCEPT	360677728***	391525485***	438201133***
DPCAPITAY	-5966.04	-5897.59	-5769.61
DJBUDGET	2.01	2.36	3.41
NJPRIC	37196	19395	27308
USPRICES	47585	1966.79	14275
DUSPCEXPND	24620	27924	24904
JFDUMMY	2932906	-3191113	-28644414
PCC_FRUITS	-249265	-584876	-502217
PCC_VEG	-1225368*	-1190350*	-1409493**

* Variables are statistically significant at the 10 percent level.
** Variables are statistically significant at the 5 percent level.
*** Variables are statistically significant at the 1 percent level.

The Vegetable Model

The estimation results of the promotion response function for the vegetable sector are presented in Table 4. The adjusted R-square for the deflated adjusted de-trended model is 0.9505. The adjusted R-squares for the deflated and deflated/de-trended models are 0.9249 and 0.9451, respectively. All three models are significant at 1%, which indicates that the independent variables collectively significantly explain the variation in vegetable cash receipts. In the case of the deflated model, DPCAPITAY, NJPRIC and USPRICES are significant at the 10% level. DJBUDJET and JFDUMMY are significant at the 1% level. In the case of the deflated/de-trended model, USPRICES became insignificant but NJPRIC became significant at 5%. In the case of the deflated adjusted de-trended model, all variables are significant except PCC_VEG. DPCAPITAY, USPRICES, DUSPCEXPND and PCC_FRUITS are significant at the 10% level. NJPRIC is significant at the 5% level. DJBUDGET and JFFUMMY are significant at the 1% level.

Table 4: Promotion Response Function Model Coefficients for Vegetables.

Variables	Parameter Estimates		
	Deflated	Deflated De-trended	Deflated adjusted De-trended
INTERCEPT	420144392***	406861600***	474092965***
DPCAPITAY	-6598.22*	-6017.27*	-5963.68*
DJBUDGET	24.65***	23.01***	25.69***
NJPRIC	-179929*	-215402**	-219858**
USPRICES	95726*	78829	89277*
DUSPCEXPND	21733	15668	26028*
JFDUMMY	-41537534***	-47147243***	-49597137***
PCC_FRUITS	-1337618	-1354188	-1555334*
PCC_VEG	-129037	72899	-414067

* Variables are statistically significant at the 10 percent level.
** Variables are statistically significant at the 5 percent level.
*** Variables are statistically significant at the 1 percent level.

Interpretation of Findings

Impact of the Jersey Fresh Program on Farm Cash Receipts

The variable of interest in the promotion response function is DJBUDGET. The parameter coefficient for this variable demonstrates the impact of a dollar spent on promotion via the Jersey Fresh program on the cash receipts of New Jersey farmers. The models estimated in this study indicate that for every dollar the state spent on the Jersey Fresh Program between 1984 and 2000, cash receipts in the fruit and vegetable sectors were increased by $29.10 (in 2000 dollars). Adjusting this figure by the Consumer Price Index to 2003 dollars suggests that the return to Jersey Fresh promotion in 2003 was $31.54 for each dollar spent on the program. This means that in 2000, the $1.16 million spent on the Jersey Fresh program increased fruit and vegetable cash receipts by an estimated $36.6 million in current dollars.[2]

[2] The econometric model estimated the returns to Jersey Fresh promotion through 2000. To facilitate the discussion and interpretation of findings, all impact figures were adjusted to 2003 levels using the consumer price index for urban residents. Economic data in the following sections are in 2003 dollars.

The results of the promotion response functions estimated for the fruit sector and vegetable sector (individually) suggest that the benefits of Jersey Fresh program are accruing disproportionately to New Jersey vegetable producers. Each dollar spent on Jersey Fresh promotion enhanced vegetable sector revenues by an estimated $25.69 (2000 dollars). Fruit revenues were similarly enhanced, but by only $3.41 (2000 dollars) per promotional dollar. Adjusted to 2003 dollars, the returns to the fruit and vegetable sectors were $3.70 and $27.84, respectively.

Impact of the Jersey Fresh Program Outside of Agriculture

The benefits of the Jersey Fresh program do not accrue entirely to New Jersey farmers. Agriculture provides many pecuniary as well as non-pecuniary benefits. For instance, farmland offers state residents highly valued open space, air and water recharge areas, wildlife habitat, recreational opportunities, pastoral scenery, and a host of other rural amenities. In addition, there are important cultural and lifestyle aspects of farming. From a fiscal standpoint, agriculture encourages economic diversity and is widely viewed as a good tax ratable. Thus, policy actions that contribute to the retention of farms also benefit non-farm residents. In light of the historic decline in New Jersey agriculture and the diminished profitability characterizing many New Jersey farms today, the Jersey Fresh program is a critical mechanism for sustaining agriculture in New Jersey and ensuring the continuation of the economic and non-economic benefits it confers to the state and its residents.

From an economic standpoint, agriculture is also integrally linked with many other industries. As output expands in the farm sector, other supporting industries

similarly experience a “rising tide” effect. The expansion in sales revenues attributed to Jersey Fresh program therefore has ripple effects that extend throughout the New Jersey economy. Economic impact analysis allows for the quantification of these effects.

Economic impact analysis involves the examination of changes in output, value-added, or employment that occur in a region’s industries as a result of an event occurring within the region. Such studies provide generalized estimations of economic inter-relationships and dependencies and are useful for examining the effects of changes in one industry on other industries. Such analysis requires the development of economic factors (called multipliers) that reflect the infusion of dollars into a region based on the direct introduction of new dollars and the re-spending of those dollars by employees and industries and by reallocation of tax dollars. Multipliers in this analysis were generated using IMPLAN Professional® Version 2.0, a widely used input-output modeling system.

Economic multiplier effects may be decomposed into both indirect and induced economic effects. *Indirect impacts* represent the response by all industries within New Jersey to output changes in a single industry (in this case, the agricultural industry). Industries producing goods and services utilized by the farm sector expand their output as demand for such goods and services grows with farm output. Industries supporting these farm support industries also face increased demand for their goods and services, and so forth. These backward linkages continue until leakages (imports, wages, profits, etc.) stop the cycle. *Induced impacts* represent the change in household spending due to the changes in production within the agricultural industry and supporting industries.

IMPLAN analysis shows that for every $1 dollar of output in the New Jersey fruit and vegetable sector, an additional $0.728 of sales are created through indirect and induced activity within other New Jersey industries. As mentioned in the previous section, the results of the econometric model show that through the 2000 promotion year, every $1 dollar in Jersey Fresh expenditures increased New Jersey's agricultural fruit and vegetable sector revenues by an average of $31.54 (2003 dollars). Therefore, as a result of Jersey Fresh promotion (and the ensuing increase in farm sales), multiplier analysis suggests that an additional $22.95 of revenues in other industries is realized through indirect and induced activity for each dollar of Jersey Fresh expenditure. Thus, for every $1 dollar in Jersey Fresh expenditures through 2000, total New Jersey economic activity (output) increased by $54.49.

The 2000 Jersey Fresh budget of $1.16 million generated an estimated $36.6 million in additional revenue for New Jersey fruit and vegetable farmers and an additional $26.6 million in other industries through indirect and induced effects. Overall, the Jersey Fresh promotional program was therefore responsible for $63.2 million worth of economic activity in New Jersey. Table 5 shows the New Jersey industries most impacted by Jersey Fresh promotion activity. Of course the fruit and vegetable sector itself is the number one impacted industry, because of the direct impact on sales ($36.6 million). The second largest total impact is on the wholesale trade industry ($3.8 million). New Jersey real estate industry, the third most impacted, saw an additional $1.5 million in sales due to Jersey Fresh promotion.

Not surprisingly, other industries significantly impacted by the sales expansion created by Jersey Fresh include agricultural service firms (providers of soil preparation, crop planting, crop harvesting, management, and other services to farms), container manufacturers, and transporters and warehousers. Medical and dental service providers also benefit considerably from Jersey Fresh promotion due to the household spending effects ("induced impacts") associated with the economy wide economic activity created by the Jersey Fresh program.

Table 5: Impacts of Jersey Fresh Promotion on New Jersey Industries.

Industry Sector	Direct Impact ($)	Indirect Impact ($)	Induced Impact ($)	Total Impact ($)
Fruits and Vegetables	36,585,956	57,708	12,365	36,656,028
Wholesale Trade	0	3,126,402	739,216	3,865,619
Real Estate	0	982,366	551,325	1,533,691
Petroleum Refining	0	1,257,566	232,946	1,490,512
Owner-occupied Dwellings	0	0	1,142,404	1,142,404
Agricultural, Forestry, Fishery Services	0	1,051,341	953	1,052,294
Paperboard Containers and Boxes	0	1,006,502	23,844	1,030,346
Motor Freight Transport and Warehousing	0	817,444	191,575	1,009,019
Hospitals	0	87	738,504	738,590
Doctors and Dentists	0	0	708,067	708,067
All Other Industries	0	4,474,019	9,504,041	13,978,061
Total	**36,585,956**	**12,773,435**	**13,845,239**	**63,204,630**

* Impact figures adjusted to 2003 dollars.

Impact of the Jersey Fresh Program on Public Sector Revenues

The expanded economic activity generated through Jersey Fresh promotion impacts local, state, and federal taxes. An analysis of tax impacts shows that New Jersey State and local tax revenues increased by $2.2 million in 2000 due to the increased economic activity attributable to Jersey Fresh promotion. Comparing this return to the 2000 program budget of $1.16 million, the Jersey Fresh program appears to be better than revenue-neutral.

Conclusion

The Jersey Fresh program was introduced by the state in 1984 in an effort to expand consumer awareness and purchases of New Jersey farm commodities. This study suggests that the Jersey Fresh campaign has provided, and continues to provide, substantial economic benefits to farmers in the state. In addition, the increased farm output attributable to Jersey Fresh promotion has significant economic impacts in other segments of the New Jersey economy.

Results from an econometrically estimated promotion response function suggest that through 2000, each dollar invested in Jersey Fresh promotion raised the revenues of fruit and vegetable farmers by $31.54 (current dollars). This increased sales volume had ripple effects in other industries in the amount of $22.95 per dollar spent on Jersey Fresh, for a total return to promotion of $54.49 per dollar spent. At the 2000 funding level of $1.16 million, this means that Jersey Fresh raised fruit and vegetable revenues by a total of $36.6 million and created revenues of $26.6 million in supporting industries. The total impact on the New Jersey economy is therefore on the order of $63.2 billion. Analysis of tax impacts suggests that the Jersey Fresh program is better than revenue-neutral.

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Consumer Awareness of the Jersey Fresh Promotional Program

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Executive Summary

The Jersey Fresh marketing program, one of the nation's leading examples of state-sponsored agricultural marketing promotion, enables consumers to easily identify quality fresh produce from New Jersey by promoting locally grown fruits and vegetables in the market with Jersey Fresh's logos. This study utilizes a consumer survey to evaluate the effectiveness of the Jersey Fresh Program in terms of the impact the promotional logos have on consumers. The results of this study provide valuable information that may be used to improve the Jersey Fresh Program, and also may be used in the promotion of other New Jersey farm products as well as products in other states which have similar promotional programs.

Among other things, this study demonstrated that the Jersey Fresh promotional program has created significant brand awareness among New Jersey consumers and that consumers are willing to purchase Jersey Fresh produce when it's available. Consumers reported seeing the Jersey Fresh logo most frequently on in-store produce displays. What's more, women were more likely than men to be aware of Jersey Fresh, as were married people. Survey participants believed Jersey Fresh produce to be better than produce in other states in terms of quality and freshness. Moreover, consumers associate the Jersey Fresh logo with locally grown, quality produce.

Suggestions that emerged from the study include increasing the availability of Jersey Fresh produce during the production seasons would ensure continued consumer patronage. Also, increasing promotions of Jersey Fresh produce in supermarkets may further increase the popularity of Jersey Fresh produce. The study showed that a majority of consumers were willing to pay only a small percentage premium for Jersey Fresh produce over the market prices for other fresh produce; therefore, significant price differentials are not recommended for Jersey Fresh produce.

The results of this study lead to a better understanding of New Jersey consumers' shopping behavior, their preferences towards local produce and their demographic composition. The results may be especially encouraging to those developing marketing strategies for Jersey Fresh produce or for other similar New Jersey consumer products.

Introduction

Jersey Fresh is one of the nation's leading examples of state-sponsored agricultural marketing promotion and is one of the major programs funded by the New Jersey Department of Agriculture (NJDA). The purpose of this program is to enable consumers to easily identify quality fresh produce from New Jersey by promoting locally grown fruits and vegetables in the market with Jersey Fresh logos. The program attempts to increase the awareness of many fresh fruits and vegetables available from New Jersey by targeting consumers of New Jersey, near by Philadelphia, New York and the Delmarva (Delaware, Maryland and Virginia) region.

The importance of this program arises from many key factors that affect the market share of state-grown produce. New Jersey's agriculture constitutes a key industry for the state, contributing to income and employment. It provides livelihood for approximately 20,000 workers and accounts for 16,000 in other industry sector jobs. The geographic location of New Jersey provides some distinct advantages that can translate into increased profits for farmers. New Jersey is the most densely populated state in the U. S. and has per capita income near the highest in the nation. Moreover, the consumer demand for fresh and quality produce has been growing. Due to New Jersey's convenient location close to the big consumer markets of the northeastern states, produce can be picked at the height of ripeness and transported to these markets in minimal time and at minimal costs. The Jersey Fresh Program was developed by the NJDA to capitalize on these competitive advantages, to boost the returns to New Jersey farmers, and to increase their share of the retail market, especially during the growing season. The program campaign highlights the freshness

aspect of New Jersey produce to give local growers a competitive edge over the produce that is shipped from other states.

The Jersey Fresh Program attempts to create consumer awareness through billboards, radio and television advertising, special promotions, and distribution of attractive point-of-purchase materials. These advertisements are well identified with the Jersey Fresh logo, designed to catch consumer attention. The NJDA also participates in many promotional events such as farmers' market fairs, trade shows, cooking competitions, and in-store Jersey Fresh produce demos held throughout the state. The program distributes price-cards, stickers, banners, paper bags, and worker's aprons. Participating retail organizations receive exposure through Jersey Fresh television commercials and billboards.

Since its introduction in 1984, the Jersey Fresh Program has undergone many changes. The logo has been enhanced many times and has undergone new designs and changes in style. The Jersey Fresh-From the Garden State logo, which appeared in 1984, has been the most popular and standing logo (Zeldis, 1993). Apart from this logo the other logos that have been adopted include the Demand the Freshest campaign theme adopted in 1987, the Farm Fresh to You Each Morning campaign theme adopted in 1988, the Premium Jersey Fresh Logo from the regulatory component of the campaign started in 1988, and the Five-a-Day for Better Health campaign launched in 1992. All these campaigns helped the program to establish and enhance consumer awareness through the years (Gallup, 1988). As shown in Table 1, funding levels for the Jersey Fresh program funding have fluctuated greatly over the program's history. Funding peaked in 1988 and 1989 at $1.25 million; however, funding declined

dramatically over the next 3 years. In 1993, the program's budget was restored to $1.26 million and was reduced slightly in 1997 and again in 2001. In 2003, the program's budget was reduced further to $826,000.

Table 1: Expenditures on the Jersey Fresh Program (1984-2003).

Year	Jersey Fresh Budget
1984	$325,000
1985	$625,000
1986	$875,000
1987	$1,125,000
1988	$1,275,000
1989	$1,275,000
1990	$825,000
1991	$125,000
1992	$50,000
1993	$300,000
1994	$1,260,000
1995	$1,260,000
1996	$1,260,000
1997	$1,160,000
1998	$1,160,000
1999	$1,160,000
2000	$1,160,000
2001	$1,016,000
2002	$1,016,000
2003	$826,000
Total (1984-2003)	$18,078,000

This study evaluates the effectiveness of the Jersey Fresh Program in terms of the impact the promotional logos have on consumers. The results of this study could provide valuable information that can be applied not only to improve the Jersey Fresh Program but also in the promotion of other products of the state and in other states which have similar promotional programs.

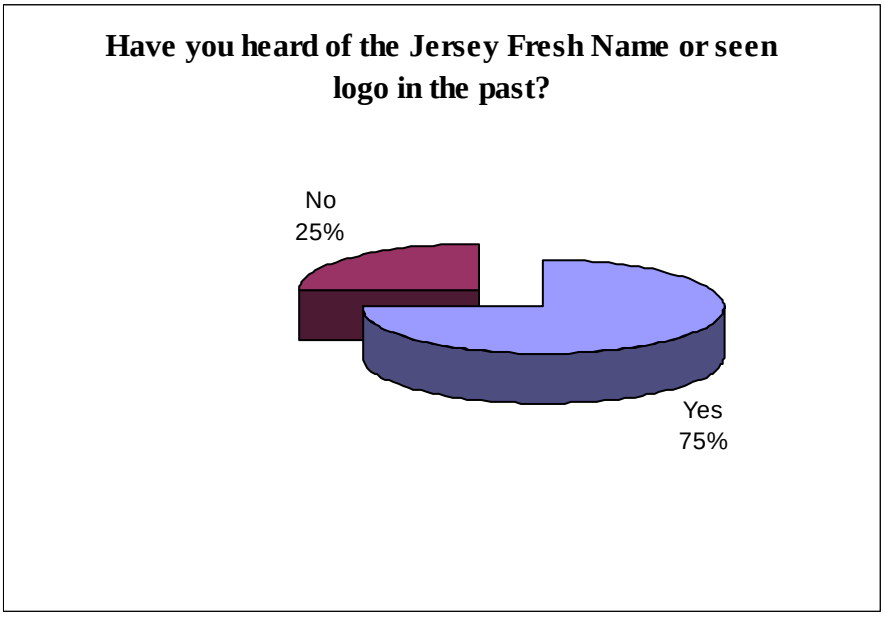
Data and Estimation

1000 questionnaires were mailed to single-family households, randomly selected from a population of more than 3 million households. A dollar bill was enclosed with each survey as a token of appreciation for the survey participants' time in completing the survey. The mailing list was obtained from www.infousa.com, a provider of sales and marketing support for all types of organizations. A total of 321 usable surveys were returned. A copy of the survey is attached.

Study Results

An important measure of the success of a promotional program is the brand recognition that it creates. In this regard, the Jersey Fresh program appears to be highly successful. As Figure 1 shows, seventy-five percent of respondents had either heard of Jersey Fresh and/or recognized the Jersey Fresh logo. According to the 1996

Figure 1. New Jersey Consumer Recognition of Jersey Fresh



Jersey Fresh survey (Govindasamy et al., 1996), about 77% of the participants reported that they were aware of the Jersey Fresh Program and that they recognized the logo.

Tables 2 through 8 present the types of people and households more likely to recognize Jersey Fresh. In general, larger households of 4 or more recognized the Jersey Fresh program more than smaller households (see Table 2).

Table 2: Recognized Jersey Fresh by Household Size

Household Size	Heard about Jersey Fresh					
	Yes		No		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	35	67.31%	17	32.69%	52	100.00%
2	77	77.00%	23	23.00%	100	100.00%
3	47	78.33%	13	21.67%	60	100.00%
4	48	81.36%	11	18.64%	59	100.00%
5	16	76.19%	5	23.81%	21	100.00%
6	12	80.00%	3	20.00%	15	100.00%
7 +	2	100.00%	0	0.00%	2	100.00%
Total	**237**	**76.70%**	**72**	**23.30%**	**309**	**100.00%**

As Table 3 shows, a slightly higher proportion of women recognized Jersey Fresh than men. Seventy-eight percent of the women surveyed recognized Jersey Fresh while 74% of the men did.

Table 3: Recognized Jersey Fresh by Sex

Sex	Heard about Jersey Fresh					
	Yes		No		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Male	86	74.14%	30	25.86%	116	100.00%
Female	152	77.55%	44	22.45%	196	100.00%
Total	**238**	**76.28%**	**74**	**23.72%**	**312**	**100.00%**

As Table 4 shows, people aged 36-50 recognized Jersey Fresh more than other age groups.

Table 4: Recognized Jersey Fresh by Age

Age Distribution	Heard about Jersey Fresh					
	Yes		No		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0-20	1	100.00%	0	0.00%	1	100.00%
21-35	23	67.65%	11	32.35%	34	100.00%
36-50	99	81.82%	22	18.18%	121	100.00%
51-65	65	77.38%	19	22.62%	84	100.00%
65 and Above	51	70.83%	21	29.17%	72	100.00%
Total	**239**	**76.60%**	**73**	**23.40%**	**312**	**100.00%**

As Table 5 shows, people with 2 or 4-year college degrees recognized Jersey Fresh more than other education levels. Seventy-nine percent of the people with 2 or 4-year college degree recognized Jersey Fresh.

Table 5: Recognized Jersey Fresh by Education

Educational Levels	Heard about Jersey Fresh					
	Yes		No		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
No Formal Schooling	1	50.00%	1	50.00%	2	100.00%
Up to High School	94	74.02%	33	25.98%	127	100.00%
2/4 College Degree	96	79.34%	25	20.66%	121	100.00%
Post Graduate	45	76.27%	14	23.73%	59	100.00%
Total	**236**	**76.38%**	**73**	**23.62%**	**309**	**100.00%**

As Table 6 shows, employed people recognized Jersey Fresh slightly more than those in other occupation groups. Seventy-nine percent of the people employed by others recognized Jersey Fresh.

Table 6: Recognized Jersey Fresh by Occupation

Occupation	Heard about Jersey Fresh					
	Yes		No		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Retired	54	73.97%	19	26.03%	73	100.00%
Self-employed	29	74.36%	10	25.64%	39	100.00%
Employed by others	118	79.19%	31	20.81%	149	100.00%
Homemaker	28	73.68%	10	26.32%	38	100.00%
Others	9	81.82%	2	18.18%	11	100.00%
Total	**238**	**76.76%**	**72**	**23.24%**	**310**	**100.00%**

As Table 7 shows, people with higher incomes recognized Jersey Fresh the most while the people with the lowest income levels recognized Jersey Fresh the least. Only 60% of those people with income less than $20,000 recognized Jersey Fresh, 68% of people surveyed with income between $20,000 and $39,000 recognized Jersey Fresh, while 80% of all respondents with income levels greater than $40,000 did recognize Jersey Fresh.

Table 7: Recognized Jersey Fresh by Income

Income (dollars)	Heard about Jersey Fresh					
	Yes		No		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Up to 20,000	18	60.00%	12	40.00%	30	100.00%
20,000-39,000	32	68.09%	15	31.91%	47	100.00%
40,000-59,000	37	80.43%	9	19.57%	46	100.00%
60,000-79,000	31	81.58%	7	18.42%	38	100.00%
80,000-99,000	21	72.41%	8	27.59%	29	100.00%
100,000-More	71	81.61%	16	18.39%	87	100.00%
Total	**210**	**75.81%**	**67**	**24.19%**	**277**	**100.00%**

As Table 8 shows, married people recognized Jersey Fresh more than single, widowed and separated people. Divorced people recognized Jersey Fresh slightly less than married people. Seventy-nine of the married people surveyed recognized Jersey Fresh while 75% of divorced people recognized Jersey Fresh.

Table 8: Heard about Jersey Fresh by Marital Status

Marital Status	Heard about Jersey Fresh					
	Yes		No		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Single	26	72.22%	10	27.78%	36	100.00%
Separate	2	66.67%	1	33.33%	3	100.00%
Widower (d)	19	63.33%	11	36.67%	30	100.00%
Divorced	21	75.00%	7	25.00%	28	100.00%
Married	162	79.02%	43	20.98%	205	100.00%
Other	5	62.50%	3	37.50%	8	100.00%
Total	**235**	**75.81%**	**75**	**24.19%**	**310**	**100.00%**

Survey respondents were asked to identify all of the places they have seen the Jersey Fresh logo or have heard about Jersey Fresh. As Table 9 shows, produce displays, television commercials and roadside markets were the top three answers. Seventy-six percent of respondents indicated that they have seen Jersey Fresh produce displays in a supermarket or other food store. Fifty-three percent of respondents indicated that they have seen Jersey Fresh television advertisements, while 40% noticed Jersey Fresh material at roadside stands.

Table 9: Places Consumers Have Seen or Heard About Jersey Fresh

Place	Frequency	Percentage
Produce displays	181	76%
TV Ads	126	53%
Roadside market Stands	96	40%
Retailer Advertisements	88	37%
Billboards	85	36%
Price Cards of Produce	58	24%
Posters and Stickers	54	23%
Radio Ads	51	21%
Dept. of Agriculture Personnel	7	3%
Others	2	1%

Survey respondents were asked to identify the types of products they associate with Jersey Fresh. As Table 10 shows, New Jersey Farmers' Produce and Quality Produce were the top 2 most frequently cited answers. Eighty-seven percent of respondents indicated that they associate Jersey Fresh with New Jersey produce and 58% of respondents indicated that they associate Jersey Fresh with quality produce.

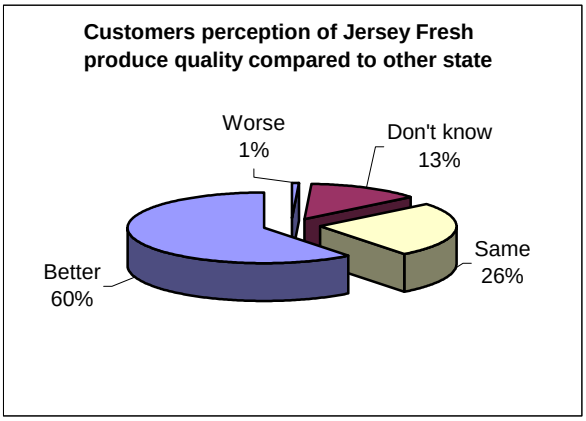
Table 10: Consumers Association of the Jersey Fresh Logo

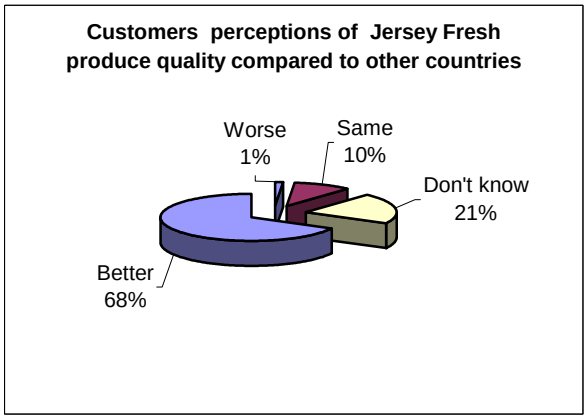
Association	Frequency	Percentage
NJ Farmers' Produce	207	87%
Quality Produce	138	58%
NJ Dept. of Agriculture	55	23%
Dairy and Eggs	30	13%
Meat from NJ	8	3%
Other	2	1%

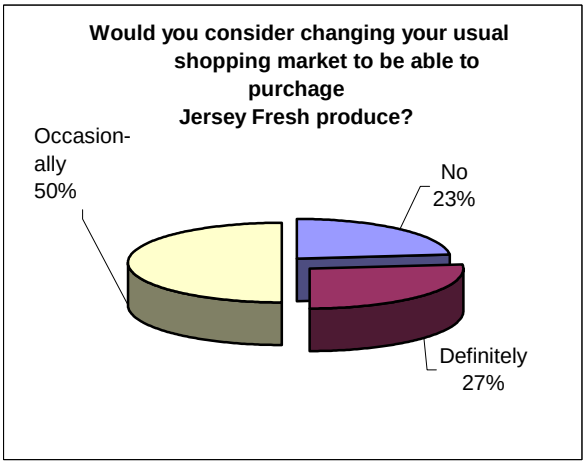
Figure 2 lists various charts depicting consumer's perceptions regarding Jersey Fresh produce. New Jersey consumers consider Jersey Fresh produce to be of high quality. For example, 60% of respondents consider Jersey Fresh produce to be higher quality than produce from other states, and 68% consider Jersey Fresh produce to be higher quality than produce from other countries.

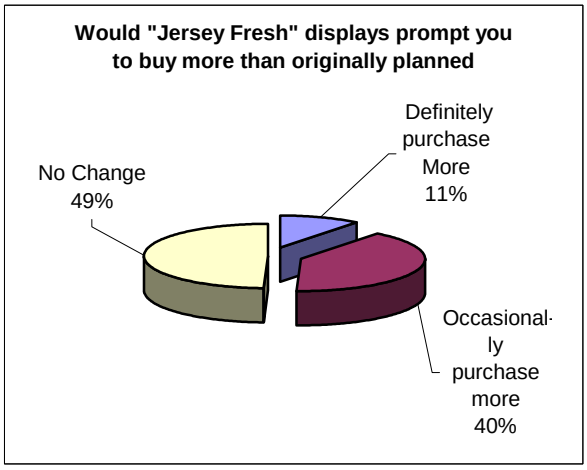
Consumers also indicated that Jersey Fresh displays actually induce changes in their buying habits. For instance, 11% said they definitely purchase more produce when Jersey Fresh is available, and 40% said they occasionally purchase more produce when it is Jersey Fresh. Furthermore, 27% of respondents said they would change their usual shopping location in order to purchase Jersey Fresh produce, and 50% said they would occasionally change their usual shopping location.

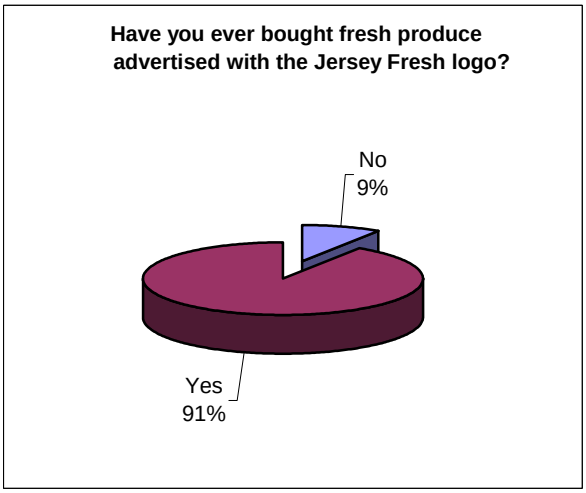
Figure 2. Various Consumer Perceptions of Jersey Fresh

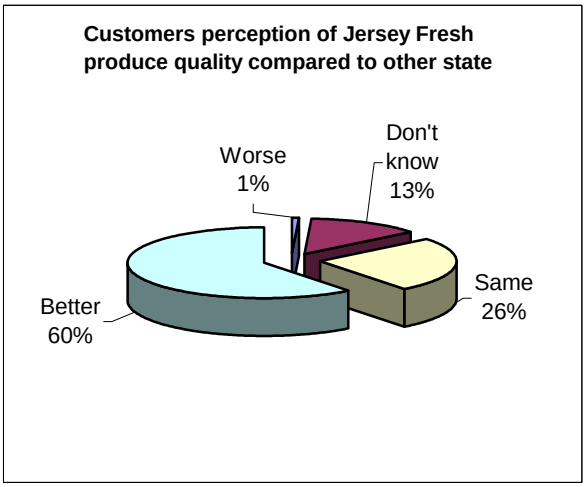








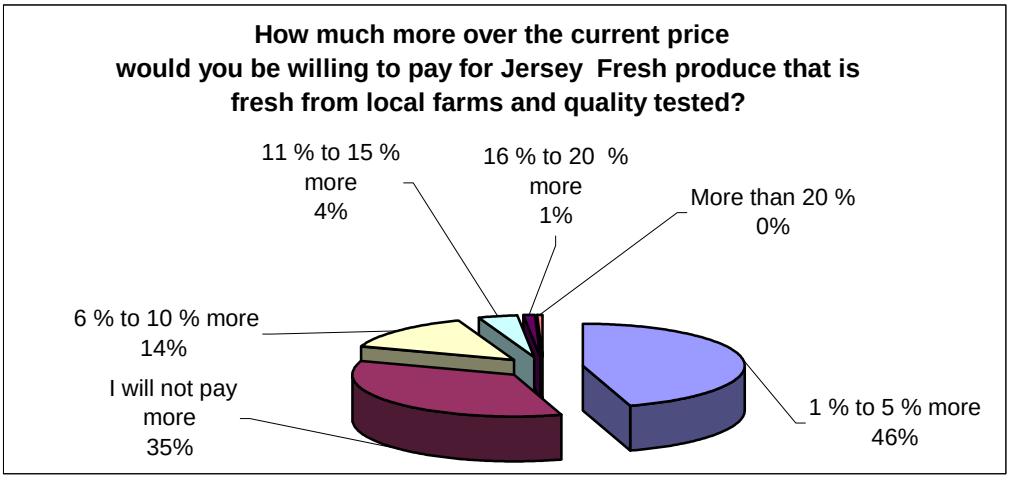




While 91% of respondents indicated that they have purchased Jersey Fresh produce, 92% said they would prefer a greater selection of Jersey Fresh produce. The information in Figure 2 suggests that the Jersey Fresh program is a having a positive impact on New Jersey fruit and vegetable revenues. In addition, there appears to be opportunities to capture even more of consumers demand for fresh fruit and vegetables.

Base on the survey results, the average consumer spends approximately $52 per month on Jersey Fresh produce, or $624 per year. In total, the average consumer spends approximately $70 per month on all produce, or $840 per year. In general, consumers are willing to pay more for Jersey Fresh produce. The majority (65%) of surveyed consumers said they would be willing to pay at least a 1%-5% more for Jersey Fresh produce. Forty-six percent of those consumers surveyed said they would be willing to pay between 1% and 5% more for Jersey Fresh produce, while 14% said they would be willing to pay between 6% and 10% more, and 4% said they would be willing to pay between 11% and 15% more. Thirty-five percent of survey respondents said they would not be willing to pay an additional amount for Jersey Fresh produce.

Figure 3. Consumers Willing to Pay More for Jersey Fresh



As Table 11 shows, female respondents were more willing to pay an additional premium for Jersey Fresh produce as compared to male respondents. Seventy percent of female respondents said they would be willing to pay at least 1% to 5% more for Jersey Fresh produce, while 60% of male respondents said they would be willing to pay more. Furthermore, homemakers were more likely to pay more for Jersey Fresh produce than any other group (see Table 12). Seventy-seven percent of homemakers indicated that they would be willing to pay at least 1% to 5% more for Jersey Fresh produce. However, homemakers were the least likely to pay more than a 5% premium for Jersey Fresh produce. This underscores the homemakers' desire to find the best balance between quality and price. Additionally, married respondents were more likely to pay at least 1% to 5% more for Jersey Fresh produce.

Table 11: Willing to Pay More for Jersey Fresh by Sex

Willing to Pay More (Percent)		Sex		
		Male	**Female**	**Total**
Not Pay	Frequency	34	43	77
	Percent	44.16%	55.84%	100.00%
1% to 5%	Frequency	33	70	103
	Percent	32.04%	67.96%	100.00%
6% to 10%	Frequency	12	20	32
	Percent	37.50%	62.50%	100.00%
11% to 15%	Frequency	5	4	9
	Percent	55.56%	44.44%	100.00%
16% +	Frequency	0	4	4
	Percent	0.00%	100.00%	100.00%
Total	Frequency	84	141	225
	Percent	**37.33%**	**62.67%**	**100.00%**

Table 12: Willing to Pay More for Jersey Fresh by Occupation

Willing to Pay More (Percent)		Occupation					
		Retired	Self-employed	Employed by others	Homemaker	Others	Total
Not Pay	Frequency	22	12	39	6	1	80
	Percent	27.50%	15.00%	48.75%	7.50%	1.25%	100.00%
1% to 5%	Frequency	23	8	47	17	6	101
	Percent	22.77%	7.92%	46.53%	16.83%	5.94%	100.00%
6% to 10%	Frequency	5	4	21	1	1	32
	Percent	15.63%	12.50%	65.63%	3.13%	3.13%	100.00%
11% to 15%	Frequency	0	4	5	0	0	9
	Percent	0.00%	44.44%	55.56%	0.00%	0.00%	100.00%
16% +	Frequency	1	0	1	2	0	4
	Percent	25.00%	0.00%	25.00%	50.00%	0.00%	100.00%
Total	Frequency	51	28	113	26	8	226
	Percent	**22.57%**	**12.39%**	**50.00%**	**11.50%**	**3.54%**	**100.00%**

Table 13: Willing to Pay More for Jersey Fresh by Number of persons in a Family

Willing to Pay More (Percent)		Household Size								
		1	2	3	4	5	6	7	8	Total
Not Pay	Frequency	13	23	15	17	4	4	0	1	77
	Percent	16.88%	29.87%	19.48%	22.08%	5.19%	5.19%	0.00%	1.30%	100.00%
1% to 5%	Frequency	10	37	19	19	9	7	0	1	102
	Percent	9.80%	36.27%	18.63%	18.63%	8.82%	6.86%	0.00%	0.98%	100.00%
6% to 10%	Frequency	4	10	7	8	3	0	0	0	32
	Percent	12.50%	31.25%	21.88%	25.00%	9.38%	0.00%	0.00%	0.00%	100.00%
11% to 15%	Frequency	3	4	2	0	0	0	0	0	9
	Percent	33.33%	44.44%	22.22%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
16% +	Frequency	2	1	0	1	0	0	0	0	4
	Percent	50.00%	25.00%	0.00%	25.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Total	Frequency	32	75	43	45	16	11	0	2	224
	Percent	14.28%	33.48%	19.20%	20.09%	7.14%	4.91%	0.00%	0.90%	100.00%

As Table 13 shows, larger households were more willing to pay an additional premium for Jersey Fresh produce; however, larger households were only willing to spend up to 10% more. Single person households were the least likely to pay an additional premium for Jersey Fresh.

As people age, their willingness to pay a premium for Jersey Fresh produce increases; however, people 65 and older are the least willing to spend additional money on Jersey Fresh produce (see Table 14). The results in Table 14 are most likely caused by the direct relationship between age and income. Indeed, people with higher income were more willing to pay an additional premium for Jersey Fresh produce. However, the willingness to pay more for Jersey Fresh produce actually decreases at the highest income levels (see Figure 4 and Table 15).

Table 14: Willing to Pay More for Jersey Fresh by Age

Willing to Pay More (Percent)		Age Distribution					
		0-20	**21-35**	**36-50**	**51-65**	**65 and Above**	**Total**
Not Pay	Frequency	0	4	34	23	19	80
	Percent	0.00%	5.00%	42.50%	28.75%	23.75%	100.00%
1% to 5%	Frequency	1	15	37	28	21	102
	Percent	0.98%	14.71%	36.27%	27.45%	20.59%	100.00%
6% to 10%	Frequency	0	2	21	5	4	32
	Percent	0.00%	6.25%	65.63%	15.63%	12.50%	100.00%
11% to 15%	Frequency	0	1	0	7	1	9
	Percent	0.00%	11.11%	0.00%	77.78%	11.11%	100.00%
16% +	Frequency	0	0	3	0	1	4
	Percent	0.00%	0.00%	75.00%	0.00%	25.00%	100.00%
Total	Frequency	1	22	95	63	46	227
	Percent	0.44%	9.69%	41.85%	27.75%	20.26%	100.00%

Figure 4. Consumers Willing to Pay More for Jersey Fresh by Income Level

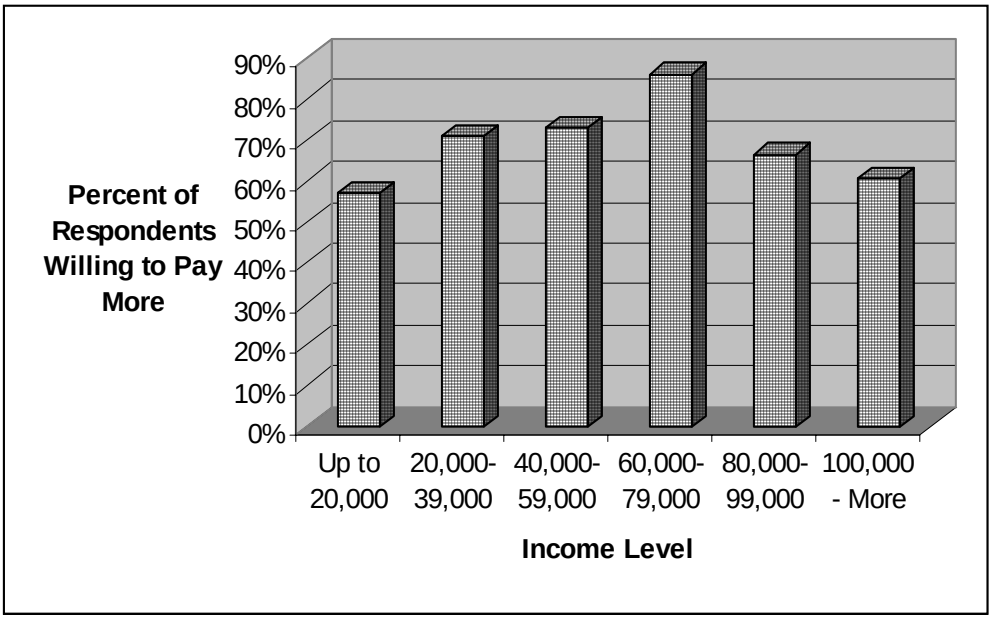


Table 15: Willing to Pay More for Jersey Fresh by Income

Willing to Pay More (Percent)		Income (dollars)						
		Up to 20,000	20,000-39,000	40,000-59,000	60,000-79,000	80,000-99,000	100,000 - More	Total
Not Pay	Frequency	6	9	10	4	7	27	63
	Percent	9.52%	14.29%	15.87%	6.35%	11.11%	42.86%	100.00%
1% to 5%	Frequency	6	17	17	22	7	25	94
	Percent	6.38%	18.09%	18.09%	23.40%	7.45%	26.60%	100.00%
6% to 10%	Frequency	1	4	8	2	1	15	31
	Percent	3.23%	12.90%	25.81%	6.45%	3.23%	48.39%	100.00%
11% to 15%	Frequency	1	0	2	0	5	1	9
	Percent	11.11%	0.00%	22.22%	0.00%	55.56%	11.11%	100.00%
16% +	Frequency	0	1	0	1	1	1	4
	Percent	0.00%	25.00%	0.00%	25.00%	25.00%	25.00%	100.00%
Total	Frequency	14	31	37	29	21	69	201
	Percent	6.97%	15.42%	18.41%	14.43%	10.45%	34.33%	100.00%

As Table 16 shows, respondents with more years of education were more willing to pay a premium for Jersey Fresh produce increases. For example, 68% of those respondents with a 2-year or 4-year college degree were willing to pay more for Jersey Fresh produce, while only 61% of high school graduates were willing to pay more.

Table 16: Willing to Pay More for Jersey Fresh by Education

Willing to Pay More (Percent)		Educational Levels				
		No Formal Schooling	Up to High School	2/4 College Degree	Post Graduate	Total
Not Pay	Frequency	1	34	30	13	78
	Percent	1.28%	43.59%	38.46%	16.67%	100.00%
1% to 5%	Frequency	0	39	44	18	101
	Percent	0.00%	38.61%	43.56%	17.82%	100.00%
6% to 10%	Frequency	0	12	14	6	32
	Percent	0.00%	37.50%	43.75%	18.75%	100.00%
11% to 15%	Frequency	0	1	5	3	9
	Percent	0.00%	11.11%	55.56%	33.33%	100.00%
16% +	Frequency	0	2	0	2	4
	Percent	0.00%	50.00%	0.00%	50.00%	100.00%
Total	Frequency	1	88	93	42	224
	Percent	0.45%	39.29%	41.52%	18.75%	100.00%

As Table 17 shows, married respondents were more willing to pay an additional premium for Jersey Fresh produce while divorced people were the least likely group to pay more for Jersey Fresh produce. However, single people were more likely to pay 11% or more additional premium for Jersey Fresh produce than any other group, possibly because single people have more disposable income than the other marital status groups.

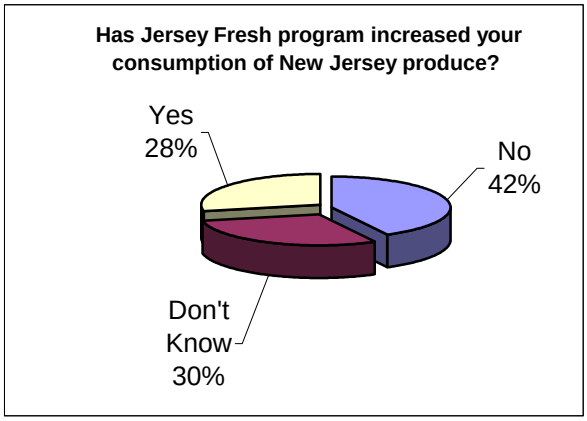
Table 17: Willing to Pay More for Jersey Fresh by Marital Status

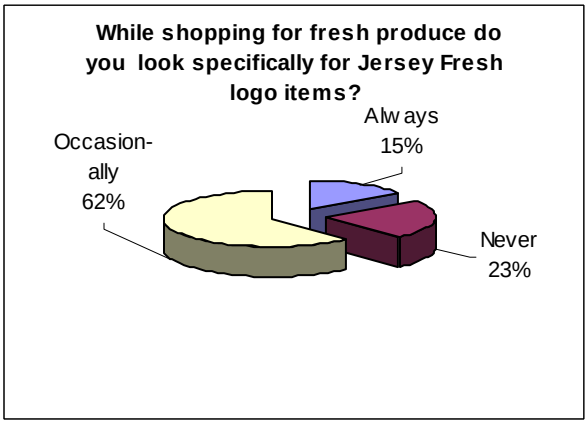
Willing to Pay More (Percent)		Marital Status						
		Single	Separate	Widower (d)	Divorced	Married	Other	Total
Not Pay	Frequency	10	0	7	9	47	3	76
	Percent	13.16%	0.00%	9.21%	11.84%	61.84%	3.95%	100.00%
1% to 5%	Frequency	7	1	9	7	77	2	103
	Percent	6.80%	0.97%	8.74%	6.80%	74.76%	1.94%	100.00%
6% to 10%	Frequency	5	1	1	1	24	0	32
	Percent	15.63%	3.13%	3.13%	3.13%	75.00%	0.00%	100.00%
11% to 15%	Frequency	2	0	0	1	6	0	9
	Percent	22.22%	0.00%	0.00%	11.11%	66.67%	0.00%	100.00%
16% +	Frequency	1	0	0	1	2	0	4
	Percent	25.00%	0.00%	0.00%	25.00%	50.00%	0.00%	100.00%
Total	Frequency	25	2	17	19	156	5	224
	Percent	11.16%	0.89%	7.59%	8.48%	69.64%	2.23%	100.00%

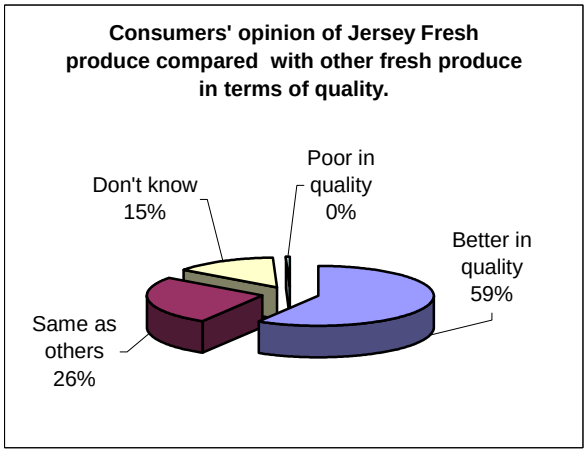
Figure 5 presents more graphical representations of consumer behavior and perceptions with regard to Jersey Fresh produce. Fifteen percent of consumers surveyed indicated that they always look specifically for Jersey Fresh logo items, while 62% said they occasionally look for Jersey Fresh logo items, and 23% said they never look for the Jersey Fresh logo.

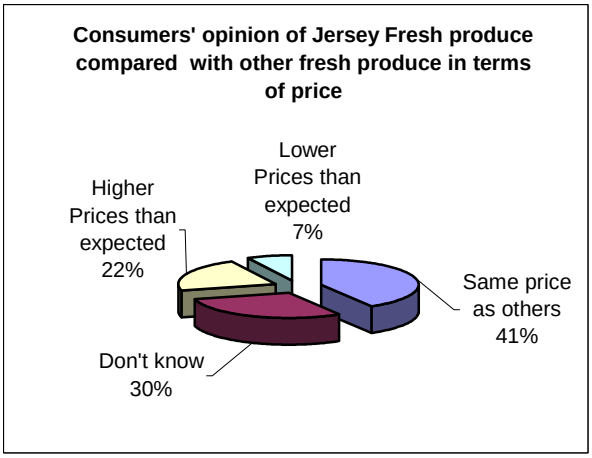
With regard to price, 22% of consumers said the price of Jersey Fresh produce was higher than expected while 41% said the Jersey Fresh price was the same as other fresh produce. In terms of freshness, 65% of consumers surveyed said that Jersey Fresh produce was very fresh compared to other produce, while 22% said that Jersey Fresh produce was the same as other fresh produce. In terms of quality, 59% of consumers indicated that Jersey Fresh produce represented better quality as compared to other fresh produce, while 26% of consumers thought the quality was the same as other fresh produce. In terms of packaging, 55% of consumers surveyed thought that

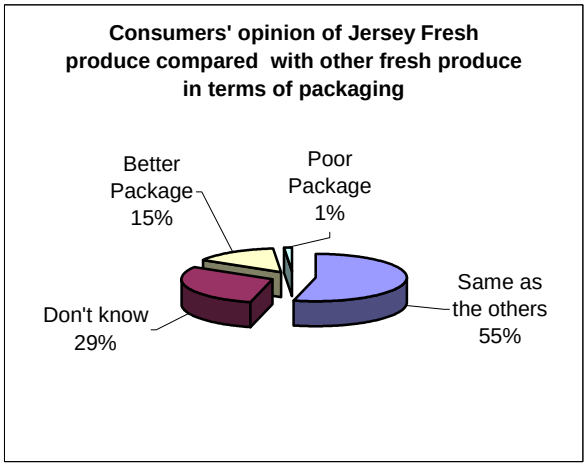
Figure 5. Consumers Behavior and Perceptions of Jersey Fresh

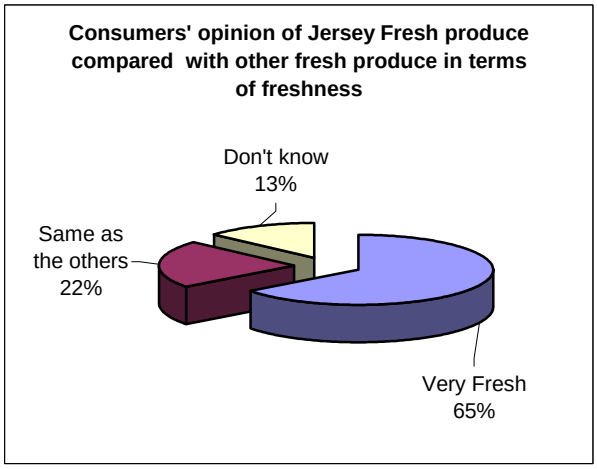












the Jersey Fresh packaging was the same as other fresh produce, while 15% thought that Jersey Fresh packaging was better, and 1% thought Jersey Fresh produce packaging was poor in comparison to other fresh produce.

In general, consumers want to purchase locally grown fresh produce. Eighty-six percent of surveyed consumers actually wish to buy produce that is grown on New Jersey farms; however, only 15% of consumers always look for Jersey Fresh produce and 62% only look for it occasionally. This indicates that there may be an opportunity to capture more of the produce market, either through increased marketing or by making Jersey Fresh produce more visible and more widely available.

Table 18 reveals consumers' preferences regarding different types of food advertisements. Not surprisingly, special price tags were most appealing to the consumers surveyed, 68% said that special price tags were more attractive, while only 4% indicated that special price tags were less attractive. Special in-store demonstrations were the second most attractive type of advertisement (47% of respondents), followed by colorful stickers (33%), posters and banners (31%), and brochures (25%). Indeed, brochures were the least attractive type of advertisement among consumers surveyed.

Table 18: Consumer appeal toward different types of food advertisements

Type	More Attractive		Neutral		Less Attractive	
	Frequency	%	Frequency	%	Frequency	%
Special price tags	196	68%	82	28%	12	4%
Special in-store demos	129	47%	115	41%	33	12%
Colorful stickers	91	33%	153	55%	34	12%
Posters and Banners	84	31%	155	57%	33	12%
Brochures	67	25%	147	54%	57	21%

Survey respondents were asked to indicate how much of each type of fresh produce they purchase during the year. They were given 5 types of produce and given 4 different relative amounts (all, most, some, none). The results are presented in Table 19. In general, consumers purchase a mixed assortment of produce from a number of different sources. Fifty-nine percent of respondents said some of their produce was Jersey Fresh, while 27% said that most of their produce was Jersey Fresh, and 9% said that all of their purchased produce was Jersey Fresh.

Table 19: Relative Quantities of Fresh Produce Bought by Consumers in 2003

Type	All		Most		Some		None	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Jersey Fresh Produce	24	9%	73	27%	159	59%	12	5%
Locally grown Produce	16	6%	91	33%	163	59%	6	2%
Vine ripened Produce	12	4%	31	12%	192	70%	38	14%
Out-of-state Produce	6	2%	57	21%	201	73%	11	4%
Organic Produce	3	1%	12	4%	109	40%	148	55%

As expected, larger households tend to spend more on Jersey Fresh produce (see Table 20). For example, 64% of respondents whose household size was 3 persons or less spent less than $30 per month on Jersey Fresh produce. By contrast, the majority of respondents whose household size was 4 persons or more spent more than $30 per month on Jersey Fresh produce.

Table 20: Jersey Fresh Expenditure per Month by Number of persons in a Family

Jersey Fresh Expenditure (dollars)		Household Size								
		1	2	3	4	5	6	7	8	Total
0-10	Frequency	1	3	4	1	1	1	0	0	11
	Percent	9.09%	27.27%	36.36%	9.09%	9.09%	9.09%	0.00%	0.00%	100.00%
10-20	Frequency	6	12	7	5	3	2	0	1	36
	Percent	16.67%	33.33%	19.44%	13.89%	8.33%	5.56%	0.00%	2.78%	100.00%
20-30	Frequency	5	10	3	4	2	0	0	0	24
	Percent	20.83%	41.67%	12.50%	16.67%	8.33%	0.00%	0.00%	0.00%	100.00%
30-40	Frequency	2	2	2	2	3	1	0	0	12
	Percent	16.67%	16.67%	16.67%	16.67%	25.00%	8.33%	0.00%	0.00%	100.00%
40-50	Frequency	1	5	0	3	1	2	0	0	12
	Percent	8.33%	41.67%	0.00%	25.00%	8.33%	16.67%	0.00%	0.00%	100.00%
50-More	Frequency	4	7	6	5	2	1	0	0	25
	Percent	16.00%	28.00%	24.00%	20.00%	8.00%	4.00%	0.00%	0.00%	100.00%
Total	Frequency	19	39	22	20	12	7	0	1	120
	Percent	15.83%	32.50%	18.33%	16.67%	10.00%	5.83%	0.00%	0.83%	100.00%

Table 21: Jersey Fresh Expenditure per Month by Sex

Jersey Fresh Expenditure (dollars)		Sex		
		Male	Female	Total
0-10	Frequency	1	10	11
	Percent	9.09%	90.91%	100.00%
10-20	Frequency	14	23	37
	Percent	37.84%	62.16%	100.00%
20-30	Frequency	7	17	24
	Percent	29.17%	70.83%	100.00%
30-40	Frequency	3	9	12
	Percent	25.00%	75.00%	100.00%
40-50	Frequency	5	7	12
	Percent	41.67%	58.33%	100.00%
50-More	Frequency	14	11	25
	Percent	56.00%	44.00%	100.00%
Total	Frequency	44	77	121
	Percent	36.36%	63.64%	100.00%

Table 21 shows the breakdown of monthly Jersey Fresh expenditures by sex. In general, female respondents tended to spend slightly less than males. For example, 35% of female respondents spent $30 or more per month while 50% of male respondents spent $30 or more per month on Jersey Fresh produce.

Table 22: Jersey Fresh Expenditure per Month by Age

Jersey Fresh Expenditure (dollars)		Age Distribution					
		0-20	21-35	36-50	51-65	65 and Above	Total
0-10	Frequency	0	1	3	4	3	11
	Percent	0.00%	9.09%	27.27%	36.36%	27.27%	100.00%
10-20	Frequency	0	6	15	7	9	37
	Percent	0.00%	16.22%	40.54%	18.92%	24.32%	100.00%
20-30	Frequency	0	3	12	6	3	24
	Percent	0.00%	12.50%	50.00%	25.00%	12.50%	100.00%
30-40	Frequency	0	2	6	3	1	12
	Percent	0.00%	16.67%	50.00%	25.00%	8.33%	100.00%
40-50	Frequency	0	3	3	4	2	12
	Percent	0.00%	25.00%	25.00%	33.33%	16.67%	100.00%
50-More	Frequency	0	0	10	8	7	25
	Percent	0.00%	0.00%	40.00%	32.00%	28.00%	100.00%
Total	Frequency	0	15	49	32	25	121
	Percent	0.00%	12.40%	40.50%	26.45%	20.66%	100.00%

Table 22 shows the breakdown of monthly Jersey Fresh expenditures by age group. In general, it appears that younger age groups tend to spend less money on Jersey Fresh produce than older age groups.

Table 23 shows the breakdown of monthly Jersey Fresh expenditures by education levels. It is difficult to make generalizations of Jersey Fresh expenditure levels based on education.

Table 23: Jersey Fresh Expenditure per Month by Education

Jersey Fresh Expenditure (dollars)		Educational Levels				
		No Formal Schooling	Up to High School	2/4 College Degree	Post Graduate	Total
0-10	Frequency	0	5	5	1	11
	Percent	0.00%	45.45%	45.45%	9.09%	100.00%
10-20	Frequency	0	13	19	5	37
	Percent	0.00%	35.14%	51.35%	13.51%	100.00%
20-30	Frequency	0	11	7	6	24
	Percent	0.00%	45.83%	29.17%	25.00%	100.00%
30-40	Frequency	0	6	5	1	12
	Percent	0.00%	50.00%	41.67%	8.33%	100.00%
40-50	Frequency	0	3	7	2	12
	Percent	0.00%	25.00%	58.33%	16.67%	100.00%
50-More	Frequency	0	12	9	2	23
	Percent	0.00%	52.17%	39.13%	8.70%	100.00%
Total	Frequency	0	50	52	17	119
	Percent	0.00%	42.02%	43.70%	14.29%	100.00%

Table 24: Jersey Fresh Expenditure per Month by Occupation

Jersey Fresh Expenditure (dollars)		Occupation					
		Retired	Self-employed	Employed by others	Homemaker	Others	Total
0-10	Frequency	1	1	8	1	0	11
	Percent	9.09%	9.09%	72.73%	9.09%	0.00%	100.00%
10-20	Frequency	11	1	18	4	3	37
	Percent	29.73%	2.70%	48.65%	10.81%	8.11%	100.00%
20-30	Frequency	5	2	14	3	0	24
	Percent	20.83%	8.33%	58.33%	12.50%	0.00%	100.00%
30-40	Frequency	1	2	7	2	0	12
	Percent	8.33%	16.67%	58.33%	16.67%	0.00%	100.00%
40-50	Frequency	3	2	5	0	1	11
	Percent	27.27%	18.18%	45.45%	0.00%	9.09%	100.00%
50-More	Frequency	6	5	11	2	1	25
	Percent	24.00%	20.00%	44.00%	8.00%	4.00%	100.00%
Total	Frequency	27	13	63	12	5	120
	Percent	22.50%	10.83%	52.50%	10.00%	4.17%	100.00%

Interestingly, self-employed respondents tend to spend the most money on Jersey Fresh produce (see Table 24). For example, 69% of self-employed respondents spent more than $30 per month on Jersey Fresh produce. By contrast, the majority of all other occupation groups spent less than $30 per month on Jersey Fresh produce.

Table 25: Jersey Fresh Expenditure per Month by Income level

Jersey Fresh Expenditure (dollars)		Income (dollars)						
		Up to 20,000	20,000-39,000	40,000-59,000	60,000-79,000	80,000-99,000	100,000 - More	Total
0-10	Frequency	0	1	1	4	3	2	11
	Percent	0.00%	9.09%	9.09%	36.36%	27.27%	18.18%	100.00%
10-20	Frequency	6	5	8	5	3	8	35
	Percent	17.14%	14.29%	22.86%	14.29%	8.57%	22.86%	100.00%
20-30	Frequency	1	3	1	8	3	6	22
	Percent	4.55%	13.64%	4.55%	36.36%	13.64%	27.27%	100.00%
30-40	Frequency	2	5	2	0	0	3	12
	Percent	16.67%	41.67%	16.67%	0.00%	0.00%	25.00%	100.00%
40-50	Frequency	1	2	2	0	2	4	11
	Percent	9.09%	18.18%	18.18%	0.00%	18.18%	36.36%	100.00%
50-More	Frequency	1	3	5	3	1	9	22
	Percent	4.55%	13.64%	22.73%	13.64%	4.55%	40.91%	100.00%
Total	Frequency	11	19	19	20	12	32	113
	Percent	9.73%	16.81%	16.81%	17.70%	10.62%	28.32%	100.00%

Table 25 shows the breakdown of monthly Jersey Fresh expenditures by income levels. Surprisingly, the two groups most likely to spend less than $30 per week on Jersey Fresh were at the upper end of the income range.

Eighty-five percent of the $60,000-$79,000 income group and 75% of the $80,000-$99,000 income group spent less than $30 per month on Jersey Fresh produce.

As expected, married respondents spent more on Jersey Fresh produce than the other groups (see Table 26). In addition, divorced respondents spent more than widowed and single respondents.

Table 26: Jersey Fresh Expenditure per Month by Marital Status

Jersey Fresh Expenditure (dollars)		Marital Status						
		Single	Separate	Widower (d)	Divorced	Married	Other	Total
0-10	Frequency	1	0	3	0	6	0	10
	Percent	10.00%	0.00%	30.00%	0.00%	60.00%	0.00%	100.00%
10-20	Frequency	4	0	7	3	21	1	36
	Percent	11.11%	0.00%	19.44%	8.33%	58.33%	2.78%	100.00%
20-30	Frequency	3	0	1	4	15	1	24
	Percent	12.50%	0.00%	4.17%	16.67%	62.50%	4.17%	100.00%
30-40	Frequency	2	0	1	2	7	0	12
	Percent	16.67%	0.00%	8.33%	16.67%	58.33%	0.00%	100.00%
40-50	Frequency	1	0	1	0	10	0	12
	Percent	8.33%	0.00%	8.33%	0.00%	83.33%	0.00%	100.00%
50-More	Frequency	0	1	2	2	20	0	25
	Percent	0.00%	4.00%	8.00%	8.00%	80.00%	0.00%	100.00%
Total	Frequency	11	1	15	11	79	2	119
	Percent	9.24%	0.84%	12.61%	9.24%	66.39%	1.68%	100.00%

Tables 27 through 33 show the breakdown of monthly produce expenditures by different categories. These tables can be compared with the tables above which show the breakdown of monthly Jersey Fresh produce expenditures for different categories. As expected, larger families spend more on produce than smaller families (see Table 27). Sex doesn't appear to be a determining factor with regard to monthly produce expenditures (See Table 28). In general, respondents between ages 21-35 spent less on produce than respondents older than age 35 (see Table 29). As Table 30 indicates, more respondents in up to High School and 2/4 College Degree spend on Jersey Fresh compared to other educational levels. And also 29% of the consumers spend $20-40

range and 38% of consumers spend $60 and above on Jersey Fresh produce. Self-employed respondents tended to spend more on produce than other occupation groups (see Table 31).

Table 27: Expenditure on Produce per Month by Number of persons in a Family

Expenditure on Produce (dollars)		Household Size								
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**Total**
0-20	Frequency	6	7	6	4	3	1	0	0	27
	Percent	22.22%	25.93%	22.22%	14.81%	11.11%	3.70%	0.00%	0.00%	100.00%
20-40	Frequency	14	22	12	12	3	5	0	1	69
	Percent	20.29%	31.88%	17.39%	17.39%	4.35%	7.25%	0.00%	1.45%	100.00%
40-60	Frequency	7	14	9	10	4	2	0	1	47
	Percent	14.89%	29.79%	19.15%	21.28%	8.51%	4.26%	0.00%	2.13%	100.00%
60-More	Frequency	11	28	20	20	7	6	0	0	92
	Percent	11.96%	30.43%	21.74%	21.74%	7.61%	6.52%	0.00%	0.00%	100.00%
Total	Frequency	38	71	47	46	17	14	0	2	235
	Percent	16.17%	30.21%	20.00%	19.57%	7.23%	5.96%	0.00%	0.85%	100.00%

Table 28: Expenditure on Produce per Month by Sex

Expenditure on Produce (dollars)		Sex		
		Male	**Female**	**Total**
0-20	Frequency	12	16	28
	Percent	42.86%	57.14%	100.00%
20-40	Frequency	22	47	69
	Percent	31.88%	68.12%	100.00%
40-60	Frequency	17	30	47
	Percent	36.17%	63.83%	100.00%
60-More	Frequency	35	57	92
	Percent	38.04%	61.96%	100.00%
Total	Frequency	86	150	236
	Percent	36.44%	63.56%	100.00%

Table 29: Expenditure on Produce per Month by Age

Expenditure on Produce (dollars)		Age Distribution					
		0-20	21-35	36-50	51-65	65 and Above	Total
0-20	Frequency	1	6	7	7	7	28
	Percent	3.57%	21.43%	25.00%	25.00%	25.00%	100.00%
20-40	Frequency	0	10	28	19	12	69
	Percent	0.00%	14.49%	40.58%	27.54%	17.39%	100.00%
40-60	Frequency	0	4	19	15	8	46
	Percent	0.00%	8.70%	41.30%	32.61%	17.39%	100.00%
60-More	Frequency	0	7	41	23	20	91
	Percent	0.00%	7.69%	45.05%	25.27%	21.98%	100.00%
Total	Frequency	1	27	95	64	47	234
	Percent	0.43%	11.54%	40.60%	27.35%	20.09%	100.00%

Table 30: Expenditure on Produce per Month by Education

Expenditure on Produce (dollars)		Educational Levels				
		No Formal Schooling	Up to High School	2/4 College Degree	Post Graduate	Total
0-20	Frequency	1	6	18	3	28
	Percent	3.57%	21.43%	64.29%	10.71%	100.00%
20-40	Frequency	0	32	24	13	69
	Percent	0.00%	46.38%	34.78%	18.84%	100.00%
40-60	Frequency	0	19	15	13	47
	Percent	0.00%	40.43%	31.91%	27.66%	100.00%
60-More	Frequency	0	33	35	22	90
	Percent	0.00%	36.67%	38.89%	24.44%	100.00%
Total	Frequency	1	90	92	51	234
	Percent	0.43%	38.46%	39.32%	21.79%	100.00%

Table 31: Expenditure on Produce per Month by Occupation

Expenditure on Produce (dollars)		Occupation					
		Retired	Self-employed	Employed by others	Homemaker	Others	Total
0-20	Frequency	4	2	16	3	3	28
	Percent	14.29%	7.14%	57.14%	10.71%	10.71%	100.00%
20-40	Frequency	18	5	38	7	1	69
	Percent	26.09%	7.25%	55.07%	10.14%	1.45%	100.00%
40-60	Frequency	9	10	16	9	2	46
	Percent	19.57%	21.74%	34.78%	19.57%	4.35%	100.00%
60-More	Frequency	18	14	45	10	4	91
	Percent	19.78%	15.38%	49.45%	10.99%	4.40%	100.00%
Total	Frequency	49	31	115	29	10	234
	Percent	20.94%	13.25%	49.15%	12.39%	4.27%	100.00%

Furthermore, as expected, respondents with higher income spent more on produce than respondents with relatively lower income (see Table 32). Finally, as expected, married respondents spent the most on produce, followed by divorced respondents. Single and widowed respondents spent the least on produce (see Table 33).

Table 32: Expenditure on Produce per Month by Income

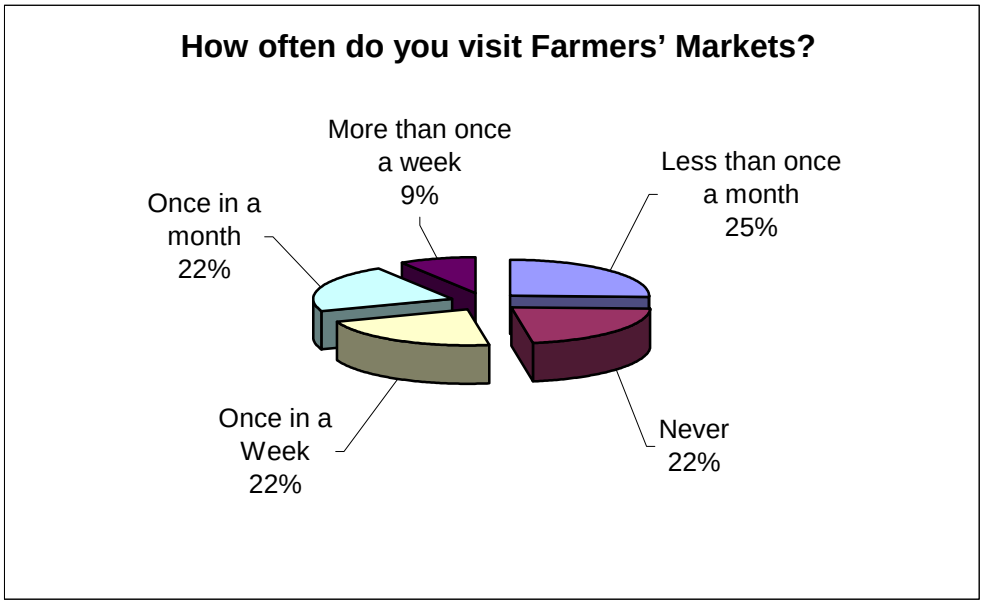
Expenditure on Produce (dollars)		Income (dollars)						
		Up to 20,000	20,000-39,000	40,000-59,000	60,000-79,000	80,000-99,000	100,000 - More	Total
0-20	Frequency	3	6	6	3	3	4	25
	Percent	12.00%	24.00%	24.00%	12.00%	12.00%	16.00%	100.00%
20-40	Frequency	8	10	9	14	4	15	60
	Percent	13.33%	16.67%	15.00%	23.33%	6.67%	25.00%	100.00%
40-60	Frequency	2	8	9	3	6	16	44
	Percent	4.55%	18.18%	20.45%	6.82%	13.64%	36.36%	100.00%
60-More	Frequency	7	11	14	7	9	36	84
	Percent	8.33%	13.10%	16.67%	8.33%	10.71%	42.86%	100.00%
Total	Frequency	20	35	38	27	22	71	213
	Percent	9.39%	16.43%	17.84%	12.68%	10.33%	33.33%	100.00%

Table 33: Expenditure on Produce per Month by Marital Status

Expenditure on Produce (dollars)		Marital Status						
		Single	Separate	Widower (d)	Divorced	Married	Other	Total
0-20	Frequency	7	0	4	5	11	1	28
	Percent	25.00%	0.00%	14.29%	17.86%	39.29%	3.57%	100.00%
20-40	Frequency	12	1	9	5	40	1	68
	Percent	17.65%	1.47%	13.24%	7.35%	58.82%	1.47%	100.00%
40-60	Frequency	3	0	1	5	39	0	48
	Percent	6.25%	0.00%	2.08%	10.42%	81.25%	0.00%	100.00%
60-More	Frequency	6	1	9	7	64	4	91
	Percent	6.59%	1.10%	9.89%	7.69%	70.33%	4.40%	100.00%
Total	Frequency	28	2	23	22	154	6	235
	Percent	11.91%	0.85%	9.79%	9.36%	65.53%	2.55%	100.00%

Figure 6 exhibits consumer behavior with regard to farmers markets. Seventy-eight percent of New Jersey consumers surveyed indicated that they visit farmers markets.

Figure 6. Consumers Visiting Farmers Markets

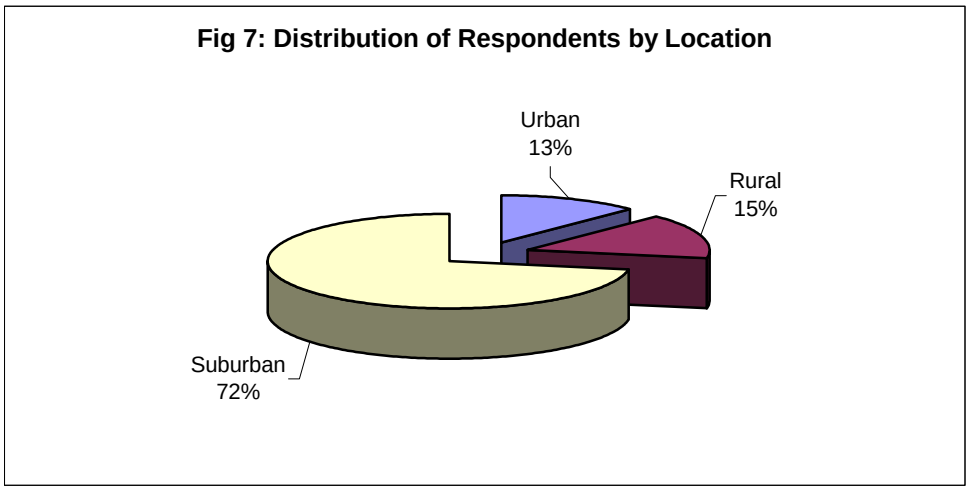


Thirty-one percent said they visit farmers markets at least once per week, while 22% said they visit farmers markets once per month. Only 22% of those surveyed said they never visit a farmer's market.

Characteristics of Survey Respondents

As Figure 7 shows, 72% of survey respondents considered lived in suburban neighborhoods, 15% lived in rural areas, and 13% lived in urban areas. More than 50% of survey respondents have lived in New Jersey for at least 35 years.

Figure 7. Distribution of Respondents by Location Type



When asked the question, "Do you believe it is necessary to maintain open space/greenery in New Jersey", 98% of respondents responded yes and only 2% responded negatively. Furthermore, 95% believe that agriculture will help maintain open space/greenery in New Jersey.

Sixty-three percent of survey respondents were female. The average family size of survey respondents was 2.84 and the average number of children per household was 0.66. As Table 34 shows, 39% of the survey respondents were between 36 and 50 years of age, and 50% were under the age of 50.

Table 34: Age Distribution of Survey Respondents

Age Distribution	Frequency	Percentage
Less than 20	1	0.32
21-35	34	10.90
36-50	121	38.78
51-65	84	26.92
Over 65	72	23.08
Total	**312**	**100.00**

As Table 35 shows, 61% of respondents were either employed or self-employed, while 24% were retired, and 12% were homemakers.

Table 35: Distribution of Survey Respondents by Occupation

Occupation	Frequency	Percentage
Employed by others	149	48.06
Retired	73	23.55
Self-employed	39	12.58
Homemaker	38	12.26
Other	11	3.55
Total	**310**	**100.00**

Eighty-four percent of respondents were Caucasian, 6% were Hispanic (or Latino), 4% were African American, and 4% were Asian. See Table 36 for a further breakdown of respondents by ethnicity.

Table 36: Distribution of Survey Respondents by Ethnicity

Occupation	Frequency	Percentage
Caucasian	259	83.82
Hispanic or Latino	17	5.50
African American	12	3.88
Asian	12	3.88
Others	7	2.28
American Indian and Alaska Native	1	0.32
Native Hawaiian and other Pacific	1	0.32
Total	**309**	**100.00**

The majority of respondents had household income above $60,000 per year (see Table 37). Thirty-one percent of respondents earned more than $100,000 per year.

Table 37: Distribution of Survey Respondents by Income Level

Income Group (in dollars)	Frequency	Percentage
Less than 20,000	30	10.83
20,000-39,000	47	16.97
40,000-59,000	46	16.60
60,000-79,000	38	13.72
80,000-99,000	29	10.47
100,000 or more	87	31.41
Total	**160**	**57.76**

Sixty-six percent of respondents were married, 12% of respondents were single, 10% were widowed, and 9% were divorced (see Table 38).

Table 38: Distribution of Survey Respondents by Marital Status

Marital Status	Frequency	Percentage
Married	205	66.13
Single	36	11.61
Widower	30	9.68
Divorced	28	9.03
Other	8	2.58
Separated	3	0.97
Total	**310**	**100.00**

Conclusions

The results of the survey indicate that the Jersey Fresh promotional program has been effective in creating brand awareness among New Jersey consumers. The study also confirmed that consumer are willing to purchase Jersey Fresh produce if available. Females were more likely to be aware of Jersey Fresh, as were married people. Consumers reported seeing the Jersey Fresh logo most frequently on in-store produce displays. Moreover, consumers associate the Jersey Fresh logo with locally grown, quality produce.

Increasing the availability of Jersey Fresh produce during the production seasons would ensure continued consumer patronage. Also, increasing promotions of Jersey Fresh produce in supermarkets may further increase the popularity of Jersey Fresh produce. Moreover, the study showed that a majority of consumers were willing to pay only a small percentage premium for Jersey Fresh produce over the market prices for other fresh produce.

Survey participants believed Jersey Fresh produce to be better than produce in other states and counties in terms of quality and freshness. This research may lead to better understanding of New Jersey consumers' shopping behavior, their preferences towards local produce and their demographic composition. These findings may be especially encouraging to those developing marketing strategies for Jersey Fresh produce or for other similar consumer products in the state of New Jersey.

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